

hen Jake Parker developed a senous bone marrow infection last year, his mother, Lon, had no idea it might be linked to the water The Parkers live next door to a Rancho Cordova well that was closed down in February due to the presence of 18 times as much perchlorate as the federal Environmental Protec-

What's In

Drinking Water?

Sacramento's

After he fell down in the driveway, Lon took 23-month-old Jake to the hospital for X-rays. Doctors didn't find anything, so they went home But the problem did not go awav.

tion Agency considers

safe

"A week later, he was dragging his leg like a dead limb," Lori said "He was pale. It was temble "

Doctors finally found a bone marrow infection in Jake s shin

marrow intection in take softial
After many complications and three
months of antibiotics he got better.
The Parkers say they have reason
to suspect perchlorate caused their
son's health problem. And they
aren't the only ones. Last Friday. 100
Rancho Cordova residents filed suit nagainst two local aerospace compa nies linked to the introduction of per chlorate into their groundwater In doses thousands of times high er than those found in Rancho Cor

dova's tainted wells perchlorate can cause diseases of the thyroid blood and bone marrow. If the substance turns out to be toxic in low doses over longer periods of time it could be the most shocking environmental bombshell of the decade said environmental activist Jane Williams

Perchlorate is a chemical component of fireworks rocket tuel and matches. The highly soluble chemical travels freely in groundwater. and no simple treatment method has been developed to remove it

Since the closure of a number of Rancho Cordova wells last Febru ary perchlorate has turned up all over the country. In Nevada water flowing into Lake Mead has con centrations 100 times higher than the recommended sate levels. The the recommended sate levels. The lake was created by the damming of the Colorado River which supplies drinking water to the Southwestern United States.

And perchlorate isn t the only

And perchiorate isn't the only toxin's showing up in Sacramento area writer (see related stories). A plume of cancer causing chemicals from the county during is threatening domestic wells near Rancho Murreta. The gisoline additive MTBE has turned up in groundwater and wills wherever it as a littory affects. wells wherever gas stitions are located. Lead remains an ever pre

sent threat to the safety of tap water And the presence of nurates has recently led to the closure of public drinking water wells in Davis

### Watch **That Water**

Chances are the majority of Sacra mentans are drinking safe water But as residents like Larry Ladd have found out sometimes it pays to start asking questions

Ladd a geographer who lives in Rancho Cordova stumbled onto

the perchlorate situation when investigating the boundary of the Folsom Cordova school district split. He discovered that a toxic plume, the legacy of years of chemical dumping was creeping southwestward through the groundwater from the nearby

Aeroject General Corp plant Under orders from the state Aerojet has been filtering carcino Aerojet has been filtering careful genic chemicals such as trichloroethylene (TCE) from the contaminated groundwater plume since the mid 1980s and reinjecting the water into the aquifer just upstream from Rancho Cordova But the treatment Aerojet uses to But the treatment Aerojet uses to remove other chemicals doesn t remove perchlorate. As a result, the company continues to put water that is contaminated with up to 450 times the recommended safe concentration of perchlorate back into the ground at the rate of 8 million gallons per day.

Edie Cartwright, vice president

gallons per day
Edie Cartwright vice president
of communications for Aerojet sa
the company is doing what state
officials have ordered it to do

What do you do with 8 million gal lons [of treated water] per day? she

said. There s no immediate way to clean it up.
Although perchlorate is relatively

new as a health concern the chemical itself is certainly not new to Sacramento's groundwiter. The chemical has been detected at 1 000 times the recommended safe con-centration in Aerojet wells since the 1950s and in public wells since at least the late 1970s. Aerojet's own least the late 1970s. Aerojet's own labs found high levels of perchiorate in one of Rancho Cordova's public wells in 1993 The only people who really didn't know about it were the peo

ple who were drinking it Ladd

said
State regulators overseeing the
Aerojet cleanup were also in the
dark because as part of its state
mandated cleanup order. Aerojet
was in charge of monitoring its own
wells for perchlorate. It wasn t until
about a year ago that regulators real
ized that Aerojet s testing method
was sensitive only to a level of 400
parts per billion (ppb) far in excess
of EPA's recommended safe dose o of EPA's recommended safe dose o

of EPA's recommended safe dose of no more than 18 ppb
Within a matter of weeks the state Department of Health Services laboratories developed a much more sensitive test that detected perchlo rate in public wells all over Rancho

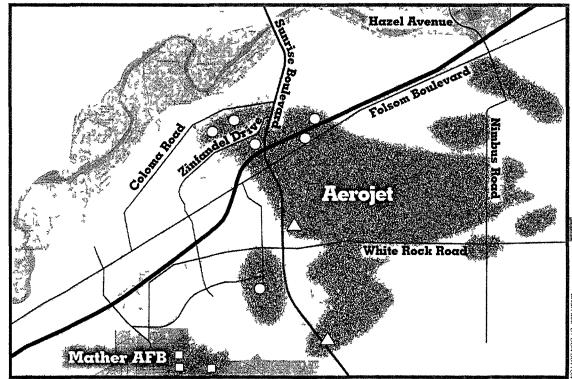
No one knows if chronic long term exposure to perchlorate is haz ardous because that type of expo sure has not been studied

In high doses perchlorate can cause some pretty masty health prof-lems. At 1 000 times the recom-mended safe dosage for drinking.

Lori Parker believes the tap water in her neighborhood is the cause of her son Jake's medical problems.



LECTION IN LABOR DALFOR



Shaded areas undicate places regional water officials consider to be affected by perchlorate. The contamination is moving southwestward, officials say.

- O Arden Cordova Wells
- △ County Sunrise Service Area Wells
- ☐ Mather Wells

### No one knows if chronic, longterm exposure to perchlorate is hazardous because that type of exposure has not been studied.

water it can cause fatal blood and bone marrow disorders Because of its action as an endocrine disrupter perchlorate might be linked to breast cancer or leukemia according to Health Department toxicologist Marilyn Underwood It can also interfere with development of the nervous system

The chemical was used in the

past as a treatment for Graves dis ease a thyroid disorder Perchlorate inhibits the secretion of thyroid hor mones effectively slowing down the metabolism People treated with per chlorate have reported stomach aches and skin rashes

Almost nothing is known about the effects of perchlorate on children or developing fetuses. In general children are more sensitive to chem ical contaminants than adults.

Jake Parker sn t the only mem Jake Parket is it the only mem ber of h is lam ly to have suffered unexpl i ned health problems after drinking water from the tap. His 6 yea old sister has had many health problems, including anemia. And Loii Pa ker suffered two miscar

riages in 1992 That same year three other women on her street had mis carriages she said
Attorney Ed Masry filed suit
Dec. 5 in Sacramento County Supe rior Court against Aerojet and McDonnell Douglas an aerospace company recently purchased by Boeing as well as several local water utilities on behalf of about 100 Rancho Cordova area residents complaining of health problems complaining of health problems allegedly caused by the contaminat ed water About 25 of the plaintiffs complain of thyroid conditions while the remaining 75 have suf fered various other afflictions including cancer The Parkers told SN&R they had not heard of the suit but intended to contact the

attorney Preliminary studies of hospital records that looked for unusual numbers of blood disorders breast cancer leukemia and babies born with severe thyroid problems amon people living in areas affected by nong perchlorate have all turned up nega the health department is a long way from isolating exactly who was exposed to the chemical and even farther from determining what health effects were caused by that exposure she said

### **Perchlorate Politics**

In the quest to establish a drinking water standard for perchlorate the financial stakes are high
The EPA decided in 1992 that it (continued on next page)

# Rorth Sec: Cot Lea

Many Sacramentans may unknowingly be consuming hazardous levels of lead in their drinking water. In a random sampling of tap water city of Sacramento water authorities found that many residents were drinking hazardous levels of lead as much as nine times what federal authorities consider safe Two rounds of tap water testing in 1992 detected lead in 86 and 89 percent of house

holds in the northern part of the city of Sacramento that get their water from a public well system. No follow up testing has been done since then.

On the whole. Sacramento water samples were within EPA guidelines. But since lead

contamination depends in some measure on the condition and a hemical composition of each household s plumbing residents should not assume their water is safe

Lead is the leading environmental hazard for children according to a recently released report from the National Resources Defense Council Drinking water makes up about 20 percent of an average adult s exposure to lead and up to 85 percent for some hottle fed infants

People who live in houses built between 1982 and 1986 are at an increased risk for lead exposure because during those years most copper pipes were soldered with lead Brass faucets which can legally contain up to 8 percent lead by weight are leading contributors of lead to tap water

Adding fluoride to water doubles its lead content by making the water more corrosive according to EPA toxicologist Bill Marcus Only a small number of Sacramentans in the Rosemont area have fluondated water but recent legislation has made countywide fluo ridation an imminent possibility

Lead makes you stupid and that might be the nicest thing that it does. In addition to

impairing mental and physical development it can increase blood pressure and dam age hearing and at very high levels can cause anemia kidney damage and mental retardation. Consumption of lead by pregnant women directly exposes the developing

fetus and can result in low b th weight and premature birth

Running water for up to three minutes or until it becomes cold especially the first time
you use it in the morning reduces lead levels by cleaning stale wate out from the pipes Also using cold water for cooking reduces ead exposure since lead is more soluble in hot water. Boiling water does not remove lead.

The only way to find out for sure if lead is in your tap water is to have it tested by a state or EPA certified lab Tests cos from \$15 to \$35 and the EPA Drinking Wa er Hotline (1 800 426 4791) can help you locate a certified lab in your area

-A.P.

did not have enough information about perchlorate to establish an enforceable drinking water standard so instead it established a recom mended safe dose of 4 parts per bil lion (ppb) By this time. Aerojet had already found almost 10 000 times this concentration in its own monitoring wells.

Acrojet and a group of business es that manufacture and use per collocate feating responsibility for an enormous and costly cleanup formed the benignly named Perchi rate Study Group to pressure the EPA to relax its reference dose

In 1995 the group got the EPA to expand the standard to 4.18 ppb but considering they were shooting for much higher levels (at least 400 ppb), it was not the coup they had hoped for

The EPA refused to reconsider the reference dose without conducting more studies. The Perchlorate Study Group and the Air Force—two groups that stand to bear the financial respon sibility of cleanup—volunteered to fund studies to fill in the information gaps The studies which are already under way could have a substantial effect on the determination of an EPA drinking water standard

The Air Force is funding a series of toxicity tests to convince the world that perchlorate is good



tor you said Jane Williams direc tor of the California Communities
Against Toxics There is an incestuous relationship there They we been funding their own tests hiring their own toxicologists putting their own scientists on peer review pan els There is no public advocacy group watching the level changes It s being done in the dark Taking scientific research as a hostage in the battle over cleanup

costs is not unique to the perchlorate

### Larry Ladd and his daughter, Melody.

For example last April when federal gov ernment researchers invited Sacramento to participate in one of the most comprehensive groundwater studies ever undertaken the city ini undertaken the city initially refused to participate. The reason Officals wanted a guarantee they wouldn't be held liable for cleanup costs. should new contamina tion be found City gov ernment changed its mind only when local media coverage incited a

moderate amount of public outrage Since state regulators became aware of perchlorate in Saciamento area wells last February a total of eight wells have been taken out of service and three more were initial ly closed and have since reopened

Hardest hit was Arden Cordova
Water Service which shut down
three wells showing levels from 140
to 320 ppb. Three more wells that are within the safe dosage range were initially taken offline and returned to service when the summer peak water

demand came Another well with levels within the safe range was put

Two wells in the county of
Sacramento's Sunrise Boulevard
service area are contaminated with 92 and 280 ppb respectively. The wells are on standby which means they kick in only in periods of high demand. One well pumped nearly 2 million gallons in May alone. The million gallons in May alone. The other pumped more than 120 000 gallons in August. Customer's were

In addition two wells on Mather Air Force Base have been clesed down and a third is near the safety limit

Anyone using private wells in the area of the plume (see map p evidus page) should contact local health authorities said Dave Lancaster of the Department of Health Services

Water from the city of Sacramen to Fair Oaks and Folsom South Canal has not been contaminated

A neighborhood served by Citi zens Utilities is directly in the path of the plume and the company has turned off one well because it detected trace amounts of perchlo nate The company has already been hit by a trichloroethylene containing plume from Mather Air Force Base

The plume is moving our way and we re watching it closely said

Robert Roscoe managing engineer for Citizens Utilities It's like being

tied to a railroad track and seeing a single light off in the distance. We donot be doing a good job planning our water supply if we weren t planning for it

### Who Pays?

So far Aerojet has paid an estimated \$3 million \$5 million for numerous interconnections between water systems and additional storage eservoirs to reduce the level of per chlorate in local water

Some officials say Acrojet con sides it the Air Force's responsibility to pay the company back at least in part since the Air Force played a In part since the Air Porce played a large role in perchlorate contamination. Edie Cartwright vice president of communications for Aerojet would only say that the company is in negotiations with the Air Force. In addition, if the EPA's recommended the alternative to the process of the Air Force and the alternative the second process.

mended dose is raised local water purveyors might have to compen sate Aerojet for work done on their

They picked up the cost too these projects and if the safe level is actually above what s in the wells they re probably going to negotiate for reimbursement saic John Coppola of the Sacramento County Water Resources Division

But the real costs are not going to come from piecemeal system improvements A treatm

# Weird Taste. Less Filing

Some politicians think Sacramento's water is not only good enough to drink it's good enough to bottle and sell. But due to widespread contamination by a gasoline additive the water may soon begin to taste a little bit.

The secret ingredient MTBE (methyl tertiary butyl ether) a fuel oxy genate that has been found in wells and groundwater all over Sacramen to County at levels that exceed the recommended safe concentration. So far the substance has not shown up in public drinking water supplies but officials say it is just a matter of time.

A low levels within safe dosage ranges you can begin to taste and smell the substance It smells a lot I ke a gas station according to water

And a hach levels scient sts suspect the substance can cause cancer
Exposure to MTBE can also cause headaches breathing difficulties nau sea rashes nosebleeds eye mitation and dizziness

The fuel additive which composes up to 15 percent of gasoline is highly soluble in water migrates quickly through so I and is extremely dif

neut to remove

Congress mandated addition of oxygenates to gasoline in 1990 before ascertaining its effects on groundwater. The gasoline companies were happy to oblige because MTBE is a byproduct of the refining process.

The oxygenate was added to gasoline to reduce emissions but

The oxygenate was added to gasoline to reduce emissions but recently Chevron Corp became the second major refiner in a month to withdraw its endorsement of the additive saying that oxygenates do little to reduce smog and that gas companies can meet emissions standards without oxygenates

Once thought to get into the ground mainly through leaking fuel tanks WTBE is now known to pass through pipe seals into the soil according to Steve Bond a geologist for the Central Valley Regional Water Quality Control Board Rain also washes the chemical into surface waters

Denver was one of the first cities to add MTBE to its gas in the late 1980s. A recent study found detectable levels of the additive in 79 percent

of the city's shallow urban wells

of the city's snallow urban wells
Recently the Sacramento City Council voted to bottle and sell an
extra punified version of Sacramento tap water to community based
groups who will then be able to sell it for profit
Denver water officials say they have no similar plans

NO TRESPASSI сорыту о George Waegell

# Kee Lact: Drinking Their FIL

Is your water safe? Not it you live near the county dump say some of the nearby residents

The Kiefer Landfill in the southeastern part of Sacramento County

The Refer Landill in the southeastern part of Sacramento County has given birth to a toxic plume of caranogenic chemicals that is headed southwest toward local drinking water wells. The county's plans to expand the dump have local citizens up in arms.

They say that the dump was built in a location that geologically provides a direct pipeline into the groundwater. EPA guidelines established after the dump was built would never have allowed it to ell a resident whose property is in the path of the plume.

cate there according to George Waegell a resident whose property is in the path of the plum.

We put the landfull in the wrong place—said Waegell—You could throw a rock anywhere in the

Vicka Kretsinger a groundwater consultant for the county concedes it might not have been the best place

to put a dump given the geological attributes of the area

The boundaries of the plume are not well known because there are not enough monitoring wells said John Moody an engineer for the State Water Quality Control Board who oversees the Kiefer Boulevard site. In the worst-case scenario, the plume is threatening to extend beyond the landful site to the south if it hasn't already

I'm not comfortable with it Moody said. I don't have the data that I d like to have. There is no question we need better monitoring ability

There are at least 41 domestic drinking water wells and another 25 agricultural wells used for impation

within about a rule of the property line to the south and west of landfill

Directly under the 165 acre unlined portion of the landfill cancer causing chemicals have been measured at almost 50 times the EPA's dimking water standard. One monitoring well which is about 1 000 feet inside the Kiefer property line showed eight times the legal limit of trichloroethylene (TCE) a known human carcinogen.

The county is currently pumping contaminated water from the plume treating the contamination and dis The county is currently pumping contaminated water from the plume treating the contamination and als charging the treated water into Deer Creek. It has installed a system to collect and eliminate landfill gases which are the main contributors to groundwater pollution from dumps according to landfill consultant G. Fred. Lee The county is embarking on a third phase of treatment that officials expect to entirely contain the plume. The county has bought almost 1 000 acres from landowners Tony Dutra and Angelo Tsakopoulos at a cost of \$13 million to expand monitoring capabilities and establish a buffer zone between the dump and residential areas. Officials are continuing plans to expand the landfill—a move local cutzens think is a big mis trike.

We have absolutely no faith in their program whatsoever | James said | At this point we don't have a problem with our water But if we don't stay with [county officials] we will be drinking contaminated water for a year or two before we know about it | The county has a cash cow in the landfill | Waegell said | It's sinking into the aquifer and future general to accept to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general to accept the sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and future general transfer and sinking into the adulter and sinking into the

---A.P

that will extract and treat water at the contamination site is being developed at an estimated cost of

begin operation next April
Until that time, under state
orders, Aerojet will continue to reinorders, Aerojet will continue to rein-ject water containing perchlorate into the aquifer. Although the planned treatment is intended to stop the reintroduction of contam-nated water, it will do nothing for the fringes of the plume, which have already spread over Rancho Cordova and are heading southwest. If EPA establishes a drinking water standard that is as low as the current recommended dose, water purveyors will have to find a way to use individual wells. That technology is traces away. Regional Water Quality years away, Regional Water Quali Control Board officials say. Meanwhile the spread of perchlorate could threaten other wells and further tax the already burdened drink-

ing water supply.

The Parkers, who have lived in Rancho Cordova for 11 years, aren't sticking around to see how it all

turns out
"We're putting our house on the
market," Lori said. "We don't want
live here any more. It's scary being
near Aerojet Buffalo Creek—who knows what they might have washed through there? There have been a lot of unexplained health problems."



Simple things you can do to make your water safer:

• BOILING WATER will kill bacteria and cryptosporidium, a microscopic parasite. This is especially recommended for people with weakened immune systems.
Do not boil water served to infants for more than a minute because this can concentrate lead and

• RUNNING THE TAP for between 30 seconds and three min-

David Not Onite Cafaioca

Some people pay for mineral water. In Davis, it flows from people's

taps.

"If we were to bottle and sell the water, it would have to be labeled as mineral water," said Bob Schoech of the city's Department of Public Works. The water contains levels of dissolved solids that generally exceed EPA's taste and smell guidelines, although they don't usually exceed safety limits.

Some say the water is "enriched." Others endow it with magical

powers.

"I've had people call and say the water turns their oatmeal green Schoech said. "Some things you can explain, and some things you can't In that case, I recommended they switch brands of oatmeal."

can't in that case, I recommended they switch orands of outmedi.

Its purported supernatural powers notwithstanding, Davis' water
poses some health concerns worth keeping in mind. The water contains high levels of nitrates, chromium and selenium. Although the
water is within EPA guidelines for all of these materials, some wells
are currently shut down, or have been taken offline in the past due to
high levels of contamination. Public Works officials say the risk of exposure from any one Davis well is relatively low because water from different wells blends together in the pipes

The level of nitrates, a component of fertilizer, is on the rise in Davis' drinking water supply, and although current levels are within

EPA standards, trouble is on the horizon, according to two groundwa-

In a 1993 study, Robert Criss and Lee Davisson found that 80 per-cent of water being pumped from the ground in Davis hasn't been there very long Most of Davis' groundwater is agricultural returns—

vhich has seeped back down into the aquifer. Fertilizer, in the form of anhydrous ammonia, is dissolved into the irrigation water. When this water seeps back into the ground, it with it elevated levels of rutrates.

carnes with it elevated levels of nitrates.

"We are mining groundwater and artificially, inadvertently, recharging it with poor-quality water," Davisson said.

Earlier this year, one well had to be closed because at 51 parts per million (ppm) the nitrate level exceeded the EPA drinking water standard of 45 ppm. Wells in service register nitrate levels ranging from

2.6 to 39 ppm.

Infants under six months of age can develop "blue baby syndrome" from consuming high levels of nitrates. Symptoms include a bluish color around the lips, which spreads to fingers, toes, face and, eventually, the entire body. If left untreated, the condition can be fatal.

Nitrates are very difficult and costly to filter out of the water, said Schoech. An ion exchange treatment method would cost \$500,000 per well and would require more space than available near residential wells. Davis Public Works is

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call and say the

water turns their

Some things you

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I recommended

of oatmeal."

can't. In that case,

they switch brands

oatmeal green.

fitting several wells with new seals in an attempt to keep nitrates out

rates out. Criss said that the only to stop wasting water and fertilizer. "There's no question that

we are overusing these resources," Criss said, "We don't put any econom on the quality of the environment. If that were factored into the price of fertilizer, than would use less

One well recently regis-tered levels of chromium that exceeded the EPA drinking water standard. The Depart-ment of Public Works had the well retested, and the second time was within range. Chromium is a naturally

occurring metal. It can get

into water from runoff from old mining operations and improper waste disposal from plating operations

Levels of chromium exceeding EPA standards can cause health effects such as liver and kidney damage, dermatitis and respiratory problems. Davis wells generally have chromium levels at about one half the legal limit.

natt the legat limit.

Selenium, a naturally occurring element, was considered a prob-lem in Davis' water supply until the EPA relaxed its drinking water standard in 1994. In 1993, almost half of Davis' wells were at or above

standard in 1994. In 1993, almost half of Davis wells were at or above recommended levels. Since the standard was changed, all the wells are in compliance, said Schoech.

Levels of selenium are now generally less than half of the EPA drinking water standard. The amount of selenium in a liter of Davis' drinking water is less than the amount in one 5-ounce serving of broccoli.

Although a trace of selenium in the diet is essential, too much of it tribugh a trace of seleminin in the alet is essential, too much o cause symptoms such as severe nausea, loss of hair and nails the formation of skin lesions.

and the formation of skin lesions.

Unless you are extraordinarily thirsty, there is little cause for worry.

To overdose, you would have to consume about 5 milligrams of selenium in a day, which translates into about 22 gallons of water.

---A.P.

especially the first time you use each faucet each day, reduces the amount of lead in the water Use cold tap water for dnnking, cooking and making ice since lead is more soluble in hot water

46

### · REDUCE SHOWER TIME

and ventilate your bathroom well Inhaling fumes from compounds that evaporate easily is a common pathway of exposure to some organic contaminants,

### · MANY HOME FILTRA-

TION DEVICES are unregulated Look for NSF (National Sanitation Foundation) certification for the specific contaminant you want to

BOTTLED WATER IS OFTEN NO SAFER THAN TAP WATER, according to the Natural Resources Defense Coun-

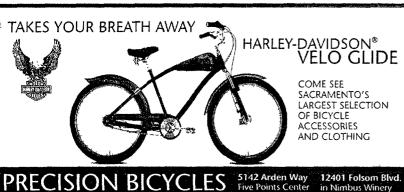
cil It can be a good solution if you know your tap water is contaminated. But it is not regulated any more strictly.

# · GET IN TOUCH WITH

PROVIDER and request monitonna results for both regulated toning results for poin regulated and unregulated contaminants. Ask them to explain the results. Request copies of any notices of violations sent out during the past couple of years. Find out the source of your water, and note whether re are any obvious contamination risks nearby

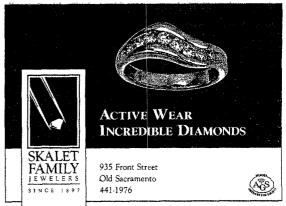
• IF YOUR WATER IS CONTAMINATED, ask your water utility state regulators, the EPA and elected representatives to

source: National Resources Defense Council, 1997



5142 Arden Way Five Points Center 488-5353

12401 Folsom Blvd. in Nimbus Winery 351-9066





INSIDE: FILM BOOKS . DILBERT . LAST-MINUTE GIFTS

SACRAMENTO'S NEWS AND ENTERTAINMENT WEEKLY / VOLUME 9 NO 36 / THURSDAY, DESENDED

# Trouble On Tap ......16

Perchlorate seeping underground in Rancho Cordova; nitrates and chromium in Davis wells; MTBE in groundwater wherever gas stations are located; too much lead in drinking water all over town. Here's your chance to find out more than you may want to know about Sacramento's drinking water.

By Amy Paris

Cover Photo by Larry Dalton Cover Design by Don Button



# Don'ts...21

state's labor al fundraising lain wrong and Gov. Pete the campaign that would dues.

vin



# Last-Minute Gift Guide ......pullout

If you procrastinated this year on the holiday gift-buying thing, here's a shopping guide that may finally get you in gear.

# **EDITOR'S NOTE**

## Water And Crud

When it comes to water, we've got two things working against us as a society.

First of all, we use a lot of it. Really, a lot of it. A single American family uses more water in a week to flush the toilet than a whole tribe of Bedouin uses in a month for drinking, cooking, washing, watering the lawn, etc.

The second thing is we use lots and lots of other substances that fall under the technical rubric of crud. Included in this sweeping category are many of our favorite things: agricultural poisons, chemical fertilizers, petroleum distillates ... the list is endless. And the one thing all of these substances have in common is that we dump them on the ground.

One of the most comical things about our species is that we don't seem to know that the ground is also where our water lives when it's not being used to make coffee or flush toilets. In a way, it's not surprising. We're like the kid who's never seen a cow and thinks milk comes from the grocery store. Whenever we do see some water coming from anywhere other than the tap or a plastic bottle, it's coming from the sky, not the ground. Of course, the sky is the other place we tend to dump a lot of crud.

Considering all the crud that's seeping into our groundwater, it's a wonder we're not all mutants. In a way, it's a tribute to the brave souls who provide us our drinking water that they're able to produce anything that they even think is *sort of safe*. But as this week's cover story ("Trouble On Tap," page 16) points out, the situation may be getting out of hand.

Maybe it's wake-up time. You can give up a lot of things, but you can't give up water. The muck stops here

---BOB VAN EYKEN

# TEEYECARE Way To Save!

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